

INTERNATIONAL SEARCH REPORT

PCT/IB2004/050878

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04S3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01B G01S H04S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 295 740 A (STURGES JR ROBERT H) 20 October 1981 (1981-10-20)	1-7, 12-17 8,9
Y	figures 1-8 column 3, line 20 - line 21 column 1, line 5 - line 6 column 2, line 34 - line 37	
Y	US 6 118 880 A (TEMPLE DANIEL ANTHONY ET AL) 12 September 2000 (2000-09-12) abstract column 1, line 5 - line 12 column 1, line 59 - line 65 figure 1	8
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

23 September 2004

Date of mailing of the international search report

01/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Fachado Romano, A

INTERNATIONAL SEARCH REPORT

PCT/IB2004/050878

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/031333 A1 (BAR ON AMIR ET AL) 13 February 2003 (2003-02-13)	9
A	paragraph '0001! paragraph '0012! paragraph '0013! figures 11,12	8
A	----- WO 01/88470 A (UNISENSOR APS ; DAMGAARD PREBEN (DK); OLESEN TOM (DK)) 22 November 2001 (2001-11-22) figure 2 page 1, line 2 - line 3 page 1, line 25 - page 2, line 33	1-11
A	----- DE 41 01 156 A (AUDIOCINEMA ELECTRONIC UND MED) 16 July 1992 (1992-07-16) column 3, line 15 - line 39 column 1, line 3 - line 7 figure 1	1-11
A	----- US 2002/136414 A1 (AHMAD OMAR M ET AL) 26 September 2002 (2002-09-26) abstract paragraph '0002! paragraph '0007! paragraph '0008!	8
A	----- US 5 255 326 A (STEVENSON ALDEN) 19 October 1993 (1993-10-19) abstract column 2, line 16 - line 48 figure 1	8
A	----- US 5 386 478 A (PLUNKETT BRADLEY J) 31 January 1995 (1995-01-31) column 1, line 60 - column 2, line 6 figure 1	8
A	----- US 2003/043051 A1 (SHIRAISHI TADASHI) 6 March 2003 (2003-03-06) figure 2 abstract paragraphs '0001!, '0019!	8
A	----- US 3 536 924 A (SOBERMAN ROBERT K) 27 October 1970 (1970-10-27) the whole document	1-11

INTERNATIONAL SEARCH REPORT

PCT/IB2004/050878

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4295740	A	20-10-1981	DE 2965317 D1 EP 0008714 A1 ES 483887 A1 JP 1483674 C JP 55037997 A JP 63026842 B YU 214479 A1	09-06-1983 19-03-1980 01-09-1980 27-02-1989 17-03-1980 31-05-1988 28-02-1983
US 6118880	A	12-09-2000	JP 3396838 B2 JP 11355899 A TW 415156 B	14-04-2003 24-12-1999 11-12-2000
US 2003031333	A1	13-02-2003	IL 134979 A AU 3951601 A CA 2401986 A1 CN 1440629 T EP 1266541 A2 WO 0167814 A2 JP 2003526300 T	19-02-2004 17-09-2001 13-09-2001 03-09-2003 18-12-2002 13-09-2001 02-09-2003
WO 0188470	A	22-11-2001	AU 6008001 A WO 0188470 A1	26-11-2001 22-11-2001
DE 4101156	A	16-07-1992	DE 4101156 A1	16-07-1992
US 2002136414	A1	26-09-2002	CA 2430656 A1 EP 1371268 A2 WO 02078396 A2	03-10-2002 17-12-2003 03-10-2002
US 5255326	A	19-10-1993	NONE	
US 5386478	A	31-01-1995	NONE	
US 2003043051	A1	06-03-2003	JP 2001352600 A CN 1476736 T WO 0195669 A2 EP 1254588 A2	21-12-2001 18-02-2004 13-12-2001 06-11-2002
US 3536924	A	27-10-1970	DE 1808070 A1	19-06-1969